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Analysis and Determination of Potassium Bromate in Bread

**A Thesis Submitted for the Partial Fulfillment of the
Requirements for the M.Sc Degree in Chemistry**

By

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الاية



(وقل رب زدني علما)

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Dedication

Throughout my life one person has always been there during those difficult and trying times, I would like to dedicate this project to my mother Asia Osman, in addition to her, I have been surrounded with strong supportive my uncle Salih so my brothers Osman and Aboalgasim and my aunt Faesa, would not be who I'm today without love and support of uncle, aunts, brothers, my friend, their contributions to my life will be felt forever, whole this work it will be gift for spirit of someone was dreamy to see me in this position of education my father; *Ibrahim Aboalgasim Alhaj*; ask Allah our God to accept him with all messengers and good people.

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Abstract

Potassium bromate KBrO_3 is an oxidizing agent that has been used as a food additive, mainly in the bread making process, this method is proposed for the determination of bromate ion based on the oxidation of Congo red and Crystal violet dyes in hydrochloric acid , application of spectroscopic determining, bromate ion in bread was described, eight samples of bread, made from flour, were collected from different regions in Khartoum-Sudan, the bromate ion level in analyzed bread samples were in the range from 0.002mg/l to 0.661 mg/l the accuracy and precision for method were discussed.

مستخلص البحث

برومات البوتاسيوم عامل مؤكسد يستعمل كمادة مضافة الى الغذاء وبشكل رسمى فى عملية صنع الخبز , الطريقة المقترحة لتقدير ايون البرومات مستندة على اكسدة اصباغ احمر الكونغو والبنفسجية البلورية فى وسط حامض الهيدروكلوريك ، تم وصف التحليل الطيفى لتقدير البرومات فى الخبز ، ثمانية عينات من الخبز مصنوعة من الدقيق جمعت من مناطق مختلفة من الخرطوم-السودان ، مستوى البرومات فى عينات الخبز المحللة كانت فى المدى 0.002ملغم|لتر الى 0.661 ملغم|لتر تمت مناقشة الدقة والضبط للطريقة .

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List of abbreviation

UV	Ultra violet- visible-absorption spectroscopy
AAS	Atomic absorption spectroscopy
NMR	Nuclear magnetic resonance
E	Food additives numbering